

(19) 世界知的所有権機関
国際事務局(43) 国際公開日
2005年2月17日 (17.02.2005)

PCT

(10) 国際公開番号
WO 2005/015062 A1

- (51) 国際特許分類⁷: F16H 61/40
- (21) 国際出願番号: PCT/JP2004/006109
- (22) 国際出願日: 2004年4月27日 (27.04.2004)
- (25) 国際出願の言語: 日本語
- (26) 国際公開の言語: 日本語
- (30) 優先権データ:
特願2003-289004 2003年8月7日 (07.08.2003) JP
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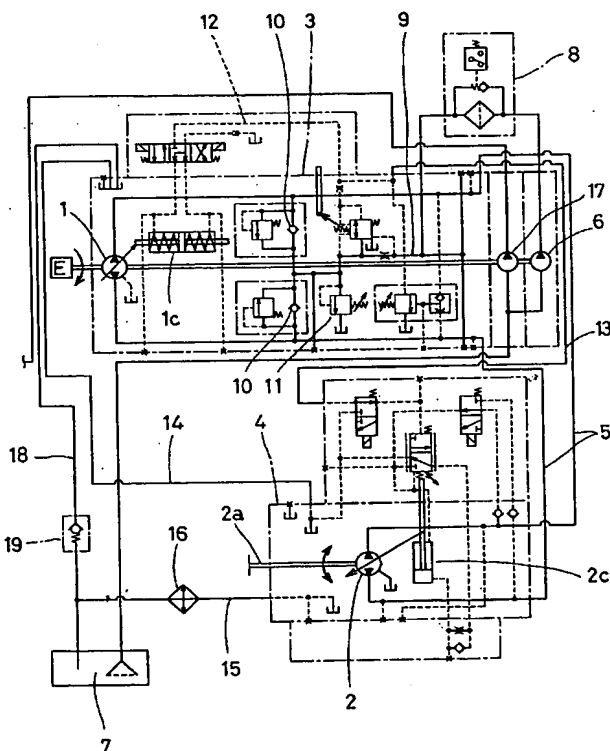
(UMEMURA, Tetsuo) [JP/JP]; 〒1588530 東京都世田谷区用賀四丁目10番1号 新キャタピラー三菱株式会社内 Tokyo (JP). 小西 聡 (KONISHI, Isao) [JP/JP]; 〒1588530 東京都世田谷区用賀四丁目10番1号 新キャタピラー三菱株式会社内 Tokyo (JP). 島崎 秀夫 (SHIMAZAKI, Hideo) [JP/JP]; 〒1588530 東京都世田谷区用賀四丁目10番1号 新キャタピラー三菱株式会社内 Tokyo (JP).

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- (81) 指定国 (表示のない限り、全ての種類の国内保護が可能): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,

/続葉有/

(54) Title: HST DRIVE CIRCUIT

(54) 発明の名称: HST駆動回路



(57) Abstract: An HST drive circuit containing an HST pump and an HST motor individually in a pump case and a motor case, wherein the HST drive circuit can be cooled efficiently. A cooling line is formed to discharge relief oil from a charging circuit (9) for replenishing an HST closed circuit (5) with pressure oil into the pump case (3) and to feed the discharged oil to an oil tank (7) through the pump case (3), communicating piping (14), the motor case (4), and an oil cooler (16), and working oil circulating through the HST pump (1), the HST motor (2), and the HST closed circuit (5) is cooled by the oil flowing through the cooling line.

(57) 要約: HSTポンプ、HSTモータをポンプケース、モータケースに各別に収納したHST駆動回路において、該HST駆動回路を効率よく冷却できるようにする。HST閉回路5に圧油を補充するチャージ回路9からのリリーフ油を、ポンプケース3内に放出せしめる一方、該放出された油をポンプケース3、連通配管14、モータケース4、オイルクーラー16を経由して油タンク7に流す冷却ラインを形成し、該冷却ラインを流れる油によりHSTポンプ1、HSTモータ2、およびHST閉回路5を循環する作動油を冷却するように構成した。



LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG,
SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ,
VC, VN, YU, ZA, ZM, ZW.

IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF,
BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN,
TD, TG).

添付公開書類:

— 国際調査報告書

(84) 指定国(表示のない限り、全ての種類の広域保護が可能): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), ユーラシア (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), ヨーロッパ (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/JP2004/006109

A. CLASSIFICATION OF SUBJECT MATTER
Int.Cl⁷ F16H61/40

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
Int.Cl⁷ F16H61/40

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
Jitsuyo Shinan Koho 1922-1996 Toroku Jitsuyo Shinan Koho 1994-2004
Kokai Jitsuyo Shinan Koho 1971-2004 Jitsuyo Shinan Toroku Koho 1996-2004

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	JP 11-30304 A (Uchida Oil Hydraulics Mfg. Co., Ltd.), 02 February, 1999 (02.02.99), Full text; all drawings (Family: none)	1
A	JP 2001-146951 A (Kanzaki Kokyukoki Mfg. Co., Ltd.), 29 May, 2001 (29.05.01), Full text; all drawings & US 6425244 B1 Full text; all drawings & DE 10047166 A	1

☒ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

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Date of the actual completion of the international search
20 July, 2004 (20.07.04)

Date of mailing of the international search report
03 August, 2004 (03.08.04)

Name and mailing address of the ISA/
Japanese Patent Office

Authorized officer

Telephone No.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP2004/006109

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	JP 2002-227998 A (Hitachi Construction Machinery Co., Ltd.), 14 August, 2002 (14.08.02), Full text; all drawings (Family: none)	1
A	JP 2003-14112 A (Yanmar Co., Ltd.), 15 January, 2003 (15.01.03), Full text; all drawings (Family: none)	1